

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of

Amendment of Part 2 of the Commission's Rules)	ET Docket No. 00-258
to Allocate Spectrum Below 3 GHz for Mobile)	
and Fixed Services to Support the Introduction of)	
New Advanced Wireless Services, including Third)	
Generation Wireless Systems)	
)	
Amendment of Section 2.106 of the Commission's)	ET Docket No. 95-18
Rules to Allocate Spectrum at 2 GHz for Use)	
By the Mobile-Satellite Service)	
)	
The Establishment of Policies and Service Rules)	IB Docket No. 99-81
for the Mobile-Satellite Service in the 2 GHz Band)	
)	
Petition for Rule Making of the Wireless)	RM-9498
Information Networks Forum Concerning the)	
Unlicensed Personal Communications Service)	
)	
Petition for Rule Making of UTStarcom, Inc.,)	RM-10024
Concerning the Unlicensed Personal)	
Communications Service)	

**COMMENTS OF THE CELLULAR TELECOMMUNICATIONS & INTERNET
ASSOCIATION**

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Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems)	ET Docket No. 00-258
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)	

**COMMENTS OF THE CELLULAR TELECOMMUNICATIONS & INTERNET
ASSOCIATION**

The Cellular Telecommunications & Internet Association ("CTIA")^{1/} respectfully submits these comments in response to the Further Notice released in the above-captioned proceeding.^{2/} In its continuing search for additional frequencies below 3 GHz that are suitable

^{1/} CTIA is the international organization of the wireless communications industry for both wireless carriers and manufacturers. Membership in the association covers all Commercial Mobile Radio Service ("CMRS") providers and manufacturers. CTIA represents more broadband PCS carriers and more cellular carriers than any other trade association.

^{2/} Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, Including Third Generation Wireless Systems, Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2 GHz for Use By the Mobile-Satellite Service,

for new advanced mobile and fixed terrestrial wireless services, the Commission seeks comment on whether certain frequency bands that have been identified by Commission staff or proposed by third parties have the potential to accommodate new advanced wireless services. CTIA agrees that many of the bands proposed in the Further Notice can and should be reallocated for use by new advanced wireless services or incumbents relocated from other bands.

In particular, as much as possible of the 1990-2025 and 2165-2200 MHz bands, which are currently allocated for Mobile Satellite Services (“MSS”), should be reallocated for services with more clearly demonstrated needs. The 2150-2160 MHz band, which is currently allocated to the multipoint distribution service (“MDS”), should be reallocated to advanced wireless services. When combined with other spectrum bands identified in the Advanced Wireless Services NPRM,^{3/} such a reallocation would provide a large block of contiguous spectrum for and promote the global harmonization of advanced wireless services. The 1910-1930 MHz band, however, is of limited usefulness for advanced wireless services because of the need to avoid interference with the adjacent PCS bands, and the 2390-2400 MHz band lacks sufficient capacity to provide significant spectrum for advanced mobile wireless services.

The Establishment of Policies and Service Rules for the Mobile-Satellite Service in the 2 GHz Band, Petition for Rule Making of the Wireless Information Networks Forum Concerning the Unlicensed Personal Communications Service, Petition for Rule Making of UTStarcom, Inc., Concerning the Unlicensed Personal Communications Service, ET Docket No. 00-258, ET Docket No. 95-18, IB Docket No. 99-81, RM-9498, RM-10024, Memorandum Opinion and Order and Further Notice of Proposed Rulemaking, FCC 01-224 (rel. Aug. 20, 2001) (“Further Notice”).

^{3/} Amendment of Part 2 of the Commission’s Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems; Petition for Rulemaking of the Cellular Telecommunications Industry Association Concerning Implementation of WRC-2000: Review of Spectrum and Regulatory Requirements for IMT-2000; Amendment of the U.S. Table of Frequency Allocations to Designate the 2500-2520/2670-2690 MHz Frequency Bands for the Mobile-Satellite Service, 16 FCC Rcd 596 (2001) (“Advanced Wireless Services NPRM”).

DISCUSSION

I. 1910-1930 MHz and 2390-2400 MHz Bands

The Commission asks whether some or all of the 1910-1930 MHz band should be reallocated for use by new advanced wireless services or incumbents relocated from other bands.^{4/} One of the challenges in considering this issue is that this block of spectrum sits between the paired spectrum blocks currently used for PCS. Hence, in considering options for this block of spectrum, the Commission must ensure that whatever services are authorized in this band do not interfere with adjacent PCS services. This constraint would as a practical matter limit the usefulness of the band for most advanced mobile wireless services because of the guardband requirements that would be necessary to protect existing PCS services from interference. It may, however, be appropriate to allow for additional flexibility in this band to ensure it is used as efficiently as possible, but any such modifications should be done in a way that ensures there is no potential for interference with the adjacent PCS bands.

The Commission also asks whether the 2390-2400 MHz band should be reallocated for use by new advanced wireless services or incumbents relocated from other bands.^{5/} This band could be used to relocate displaced incumbents, but it lacks sufficient capacity to provide significant spectrum for advanced mobile wireless services. Relocated incumbents, particularly certain Federal Government users, might be accommodated in this band, and some could potentially share this band with the amateur service.

^{4/} Further Notice at ¶ 11.

^{5/} Id. at ¶ 12.

II. 1990-2025 and 2165-2200 MHz Bands

The Commission has allocated the 1990-2025 and 2165-2200 MHz bands to Mobile Satellite Services (“MSS”) in the United States.^{6/} Despite the fact that 2 GHz MSS licensees have not demonstrated that they have a viable business plan, the Commission denied CTIA’s request to reallocate this spectrum for other uses, including terrestrial wireless services.^{7/} CTIA has filed a Petition for Reconsideration of this decision,^{8/} in which it urges the Commission to reconsider its decision and reallocate the 2 GHz MSS band to other uses. CTIA reiterates that the Commission can and should take action in this docket to reallocate the entire 2 GHz MSS band to uses other than MSS.

Even before the Commission ruled on CTIA’s original reallocation petition, the International Bureau issued authorizations for eight 2 GHz MSS systems.^{9/} These authorizations permit each system operator to choose a Selected Assignment of 3.5 MHz of spectrum in each of

^{6/} See Amendment of Section 2.106 of the Commission’s Rules to Allocate Spectrum at 2 GHz for Use by the Mobile-Satellite Service, First Report and Order and Further Notice of Proposed Rule Making, 12 FCC Rcd 7388 at ¶¶ 10-15 (1997) (“2 GHz MSS Allocation Order”) (adopting international allocation of portions of the 2 GHz frequency band for mobile satellite service links for use in the United States), on recon., Memorandum Opinion and Order and Third Notice of Proposed Rule Making and Order, 13 FCC Rcd 23949 (1998) (affirming 2 GHz MSS allocation and seeking further comment on relocation issues) (“2 GHz Relocation Third NPRM”).

^{7/} Further Notice at ¶ 23.

^{8/} Petition for Reconsideration of the Cellular Telecommunications & Internet Association, ET Docket Nos. 00-258 and 95-18; IB Docket No. 99-81 (filed Oct. 15, 2001).

^{9/} See, e.g., ICO Services Limited, File No. 188-SAT-LOI-97 et al., Order, DA 01-1635 (July 17, 2001); The Boeing Company, File No. 179-SAT-P/LA-97(16) et al., Order, DA 01-1631 (July 17, 2001); Celsat America, Inc., File No. 26/27/28-DSS-P-94 et al., Order, DA 01-1632 (July 17, 2001); Constellation Communication Holdings, Inc., File. No. 181-SAT-P/LA-97(46) et al., Order, DA 01-1633 (July 17, 2001); Globalstar, L.P., File No. 183/184/185/186-SAT-P/LA-97 et al., Order, DA 01-1634 (July 17, 2001); Iridium LLC, File No. 187-SAT-P/LA-97(96) et al., Order, DA 01-1636 (July 17, 2001); Mobile Communications Holdings, Inc., File. No. 180-SAT-P/LA-97(26) et al., Order, DA 01-1637 (July 17, 2001); TMI Communications and

the 1990-2025 MHz and 2165-2200 MHz bands.^{10/} The International Bureau's MSS licensing orders are seriously flawed, and have been challenged by several wireless carriers as arbitrary, capricious, and contrary to law.^{11/} While that challenge is pending, the Commission should not compound the Bureau's error by reserving any additional spectrum for MSS or establishing an arbitrary spectrum "floor" for MSS. To the contrary, the Commission should reallocate as much as possible of the remaining 2 GHz MSS band for other services with more clearly demonstrated needs.

At a minimum, this means reallocating the entire 14 MHz of spectrum not covered by the challenged authorizations to advanced terrestrial wireless services immediately in this proceeding, without waiting for any MSS spectrum to be abandoned.^{12/} By contrast, under both of the options for reallocation described in the Further Notice, only ten megahertz of MSS spectrum would be reallocated to advanced wireless services.^{13/} Neither approach therefore is adequate. The MSS applicants have not demonstrated that they need access to this 14 MHz in order to provide their service. Given the rapidly increasing demand for a wide variety of spectrum-dependant services, the difficulty the Commission faces in identifying new spectrum to satisfy this demand, and the dubious future of MSS service, it would be unreasonable for the Commission to provide each MSS licensee with an additional 0.5 MHz of spectrum or retain 4 MHz for MSS system expansion.

Company, Limited Partnership, File No. 189-SAT-LOI-97 et al., Order, DA 01-1638 (July 17, 2001).

^{10/} Id.

^{11/} See Application for Review filed by AT&T Wireless Services, Inc., Verizon Wireless, and Cingular Wireless LLC, DA 01-1635 et al., File No. 188-SAT-LOI-97 et al. (Aug. 16, 2001).

^{12/} Further Notice at ¶¶ 22, 24.

^{13/} Id. at ¶¶ 25-27.

In addition to reallocating immediately to advanced wireless services all of the MSS spectrum not already licensed to MSS applicants, the Commission should adopt a rule *in this proceeding* providing that any and all abandoned 2 GHz MSS spectrum also will be reallocated and made available for advanced terrestrial wireless services.^{14/} At the conclusion of this proceeding, the Commission will have a full record addressing the best use of the 2 GHz band, and it could in the final order in response to the Further Notice make an allocation decision for any abandoned spectrum, rather than leaving that ruling to a subsequent allocation proceeding. As a corollary to such a rule, the Commission should also commit to vigorous enforcement of the MSS implementation milestones.^{15/} The MSS licensees' milestone filings should be placed on public notice so that interested parties can comment on whether they have met their milestone obligations. Because the spectrum for these services was not auctioned, MSS licensees face no market pressure to complete their deployment plans. In the absence of such market discipline, rigorous government oversight and comment by the public are essential to ensure that scarce spectrum is not left vacant for years. The failure of an MSS licensee to comply with milestones would be conclusive evidence that the licensee's plans lack viability and should trigger reallocation automatically.

The overwhelming demand for additional spectrum for advanced wireless services also compels the Commission to reject any arbitrary "floor" of MSS spectrum, not even the 40 MHz of spectrum in the bands where MSS is allocated globally and which WRC-2000 identified for the satellite component of IMT-2000.^{16/} Given the tentative prospects for MSS and that, in the

^{14/} See id. at ¶ 28.

^{15/} See Establishment of Policies and Service Rules for the Mobile Satellite Service in the 2 GHz Band, Report and Order, 15 FCC Rcd 16127 at ¶¶ 108-114 (adopting milestones for system implementation) ("2 GHz MSS Report and Order").

^{16/} Further Notice at ¶ 29.

absence of auction, demand projections have never been tested by competitive bidding, such a floor is wholly unjustified and would preclude more efficient uses for the spectrum. The Commission should not prejudge the spectrum that might be required to provide MSS at this point in time by arbitrarily designating a minimum amount of spectrum for this service. It is far from clear how much spectrum these services might require -- if indeed they are ever launched -- or how viable they might be domestically or internationally. Setting a fixed “floor” for MSS spectrum would undermine the milestone process and create additional unnecessary regulatory hurdles in an already cumbersome allocation scheme.

Finally, the Commission should not permit MSS operators to consolidate operations or acquire the spectrum of other 2 GHz MSS licensees through transfers or assignments.^{17/} Permitting a stronger licensee to buy a weaker one would artificially support the allocation of spectrum to MSS even after a licensee has concluded that its business plan lacks marketplace viability. If an MSS licensee cannot survive in the marketplace, the Commission should reallocate its frequencies to meet the demand for advanced wireless services, rather than allowing the private reallocation of this valuable spectrum to a handful of entities. By giving all qualified entities the chance to pursue the highest and best use of the spectrum, reallocation fosters the “rapid, efficient” deployment of radio communication service called for in the Communications Act.^{18/} The latter would simply provide a windfall to a few entities, without any compensation to the public and without any assurance that the resulting service would serve public needs.

CTIA notes that additional limitations on MSS licensees’ Selected Assignments will be necessary to enable wireless licensees to make the most efficient use of reallocated and

^{17/} Id. at ¶ 35.

abandoned MSS spectrum.^{19/} At a minimum, the Commission should require that all MSS licensees' Selected Assignments be on contiguous spectrum and take any other steps necessary to ensure that abandoned spectrum is reallocated so as to permit wireless licensees to make the best use of it.^{20/} For example, in the 2165-2200 MHz band, it would be most efficient for the Commission to require that MSS licensees' Selected Assignments be contiguous at the upper part of the band, adjacent to 2200 MHz, where they would create the least interference to adjacent services. The Commission also needs to reduce the spacing requirement from 3.88 MHz to 3.5 MHz, so that it is consistent with Selected Assignments of 3.5 MHz.^{21/} As the Commission has repeatedly found, 3.5 MHz is sufficient to provide an MSS service,^{22/} and there is no justification for giving MSS operators any more spectrum than necessary given the competing demands for this spectrum.

III. 2150-2160 MHz Band

The Commission asks whether the 2150-2160 MHz band, which is currently allocated to the multipoint distribution service ("MDS"), should be reallocated to advanced wireless services or used to relocate incumbents from other bands.^{23/} This band should be reallocated for advanced wireless services, and the incumbent MDS operators relocated to other bands. Incumbents can be relocated from this band without imposing unreasonable costs on new

^{18/} 47 U.S.C. § 151.

^{19/} Further Notice at ¶¶ 30-31.

^{20/} Reallocation would still enable the Commission to follow through on its current plan to relocate broadcast auxiliary service ("BAS") and fixed service ("FS") in phases, or develop an appropriate alternative phased plan. See id. at ¶¶ 32-33.

^{21/} See id. at ¶ 30.

^{22/} See, e.g., 2 GHz MSS Report and Order at ¶ 19 (citing Amendment of the Commission's Rules to Establish Rules and Policies Pertaining to a Mobile Satellite Service in the 1610-1626.5/2483.5-2500 MHz Frequency Bands, 9 FCC Rcd 5936 at ¶ 44 (1994)).

licensees or incumbents,^{24/} and, as set forth in more detail below, combining this band with other spectrum the Commission proposes to reallocate for advanced wireless services would create a large block of contiguous spectrum. The Commission should change the allocation from MDS to advanced wireless services, rather than simply adding a mobile allocation to this band, because changing the allocation and relocating the incumbents is the only approach that will enable a reasonably-sized block of spectrum to be made available for advanced mobile services through auction.^{25/}

IV. Pairing

The Commission seeks comment on additional pairing options that would be possible if the Federal Government agreed to reallocate spectrum from some of the bands identified in the Further Notice.^{26/} The Commission focuses on pairing either 1710-1770 MHz with 2110-2170 MHz, to provide 120 MHz for advanced wireless services, or pairing 1710-1780 MHz with 2110-2180 MHz, to provide 140 MHz for advanced wireless services.^{27/} NTIA also recently announced a new plan to identify and assess spectrum for advanced wireless services that will focus on the potential use of the 1710-1770 and 2110-2170 MHz bands.^{28/} According to NTIA, the Federal Government plans to complete this assessment by late Spring 2002.^{29/}

^{23/} Id. at ¶ 38.

^{24/} Id. at ¶ 40.

^{25/} Id. at ¶ 41.

^{26/} Id. at ¶¶ 42-44.

^{27/} Id. at ¶ 43.

^{28/} NTIA Statement Regarding New Plan to Identify Spectrum for Advanced Wireless Mobile Services (3G) (October 5, 2001) available at http://www.ntia.doc.gov/ntiahome/threeg/3gplan_100501.htm.

^{29/} Id.

Pairing 1710-1770 MHz with 2110-2170 MHz offers significant benefits. In particular, this approach promotes global harmonization of advanced wireless services because duplex directions for 1710-1770 MHz would match those currently being used by countries with the DCS 1800 band plan. In addition, the duplex direction for the spectrum at 2110-2170 MHz would match the direction of the spectrum currently being auctioned or otherwise licensed for IMT-2000 or third generation (“3G”) wireless services in Europe.^{30/} Global harmonization provides lower research and development and production costs for handsets and network infrastructure, which in turn ensures less expensive handsets and services for consumers. Global harmonization also will speed the delivery of new products and services to market, facilitate international roaming, and ensure the faster growth of the United States wireless market.

This band plan also would provide up to 120 MHz toward the 200 MHz of additional spectrum that the International Telecommunication Union (“ITU”), with United States government input and support, has estimated will be required in the United States to support advanced mobile services through 2010. In this regard, this pairing is far superior to the Commission’s earlier proposal to pair the 1710-1755 MHz band with the 2110-2150/2160-2165 MHz band, which did not provide adequate spectrum to allow multiple competitors to bid to provide advanced mobile services.

^{30/} In the Advanced Wireless Services NPRM, the Commission also invited comments on technologies that use unpaired spectrum. Advanced Wireless Services NPRM at ¶ 29. The Commission now asks how the various allocation choices that it could make would affect its ability to provide for unpaired use for advanced wireless services. Further Notice at ¶ 44. Unpaired use looks promising and should be investigated by the Commission. However, CTIA notes that many countries around the world, including the United States’ major trading partners, already are assigning paired spectrum for IMT-2000, and there are significant economies of scale that might be gained if the United States also allocates blocks of spectrum that could be paired. That should not, however, preclude the Commission from exploring options for unpaired spectrum in addition to paired spectrum.

Finally, the pairing of 1710-1770 with 2110-2170 MHz offers a better prospect of being cleared over the next several years than other options suggested in this proceeding, and hence provides some certainty that the spectrum will be made available in the near term to help spectrum-constrained carriers offer advanced wireless services. During the last year, both private industry and the Federal Government have carefully examined the 1710-1770 MHz band, which is currently occupied by Federal Government users. These studies have provided various options by which the current Government users might share or relocate their operations, without sacrificing operational capabilities, for this entire band, including the “protection areas” in the 1710-1755 MHz band.^{31/} The 2110-2150 MHz band has already been identified as available for reallocation, although new entrants will be required to relocate incumbent users. The 2150-2160 MHz band can and should be reallocated to advanced wireless services, and the incumbents relocated to another band.^{32/} And finally, as detailed above,^{33/} the 2165-2170 MHz band can be reallocated readily from MSS as it has not been assigned to any MSS applicants.

CTIA urges the Federal Government to complete its review of the 1710-1770 band, including the protected sites, as quickly as possible. All parties would benefit from the certainty of a decision in this proceeding that determines whether and when this spectrum could be made available. The mobile wireless industry continues to have an urgent need for additional

^{31/} See, e.g., The Potential For Accommodating Third Generation Mobile Systems in the 1710-1850 MHz Band: Federal Operations, Relocation Costs, and Operational Impacts, NTIA Final Report (rel. March 2001) available at <<http://www.ntia.doc.gov/ntiahome/threeg/33001/3g33001.pdf>>; Report of the Industry Association Group on Identification of Spectrum for 3G Services, attached to Joint Comments of the Cellular Telecommunications & Internet Association, Telecommunications Industry Association, and Personal Communications Industry Association, ET Docket No. 00-258, RM 9920, RM 9911 (filed Feb. 22, 2001)

^{32/} See supra section III.

^{33/} See supra notes 6 to 10.

spectrum, and consumers will directly benefit from a speedy process. CTIA commends the Federal Government on the extensive effort it has devoted to this issue thus far, and the mobile wireless industry is prepared to do its part to help continue this momentum in any way it can.

While CTIA finds much to commend in the government's new band plan proposal, it continues to urge the Commission to consider other bands that have been proposed for advanced wireless services, perhaps over a longer time frame. For example, in the earlier Advanced Wireless Services NPRM, the Commission explored the possibility of introducing new advanced mobile and fixed services in the 1710-1850 MHz band.^{34/} Over time, this band also offers the benefits of global harmonization with the commercial mobile services being provided today in most countries around the world in the DCS 1800 MHz band. Indeed, given the demand for wireless and advanced wireless services, no band identified for advanced wireless services by the ITU should be removed permanently from consideration in this country. The Commission will need to continually reassess the need for advanced mobile services over time, and should recognize that it may in the future determine that certain spectrum bands which are not being efficiently utilized should be reallocated to other services.

^{34/} Advanced Wireless Services NPRM at ¶ 68.

CONCLUSION

Consistent with the above recommendations, the Commission should allocate additional spectrum for advanced wireless services in order to allow wireless carriers to provide new and innovative mobile services to subscribers without delay.

Respectfully submitted,

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October 22, 2001

I hereby certify that I have this 22rd day of October, 2001, served a copy of the foregoing Cellular Telecommunications & Internet Association's comments by first class United States mail to the persons listed below.

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